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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,395	03/19/2001	Junji Momoda	SPO-591	2375

7590 04/01/2005  
Sherman & Shalloway  
413 North Washington Street  
Alexandria, VA 22314

EXAMINER

SELLERS, ROBERT E

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/787,395

Applicant(s)

MOMODA ET AL.

Examiner

Robert Sellers

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-31 is/are pending in the application.
- 4a) Of the above claim(s) 12-14, 16-18, 23-26 and 28-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-11, 15, 19-22 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

This application contains claims 16-18 and 28-31 drawn to inventions nonelected with traverse in the response filed October 15, 2004. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01. Claims 12-14 and 23-26 are withdrawn as being directed to a non-elected species of epoxy group-containing polymerizable monomer as low hardness polymerizable monomer (A).

1. The restriction requirement mailed September 15, 2004 is maintained. Momoda et al. Patent No. 6,194,511 qualifies as prior art under 35 U.S.C. 102(e) as described in the non-Final rejection mailed November 16, 2004, pages 9-10, paragraph 14. The Notice of Recordation of Assignment Document filed with the translation for Japanese priority application no. 295835/99 establishes the common ownership of the patent and instant application by Tokuyama Corporation. However, such a showing is only applicable to a rejection under 35 U.S.C. 102(e)/103 (MPEP § 706.02(I)(1), Rejections Under 35 U.S.C. 102(e)/103; 35 U.S.C. 103(c) and 706.02(I)(2), Establishing Common Ownership). Accordingly, since the special technical feature does not make a contribution over Momoda et al. with respect to lack of novelty under 35 U.S.C. 102(e) as opposed to lack of obviousness under 35 U.S.C. 102(e)/103, or 103(c), the proof of common ownership is not germane.

Art Unit: 1712

The special technical feature also does not make a contribution over Japanese Patent No. 10-338869 having a publication date of December 22, 1998. The certified translations for Japanese priority application nos. 205165/99 filed July 19, 1999 and 295835/99 filed October 18, 1999 do not antedate the publication date of the Japanese patent.

2. The amendment of the term "bifunctional" to "difunctional" regarding high hardness polymerizable monomer C) overcomes the problem outlined on page 7, paragraph 7 of the non-Final rejection. The lack of antecedent basis in withdrawn claim 26 remains. The amendments to the specification in Appendix A of the amendment filed February 16, 2005 does not correct the MAPPG monomer on page 43, lines 14-15 to polypropylene glycol methacrylate.

3. The 35 U.S.C. 112, first paragraph, rejection of claim 1 and 3 is rescinded since the specification on page 54, Table 3, Examples 55 and 56 shows the polymerization of polyethylene glycol diglycidyl ether (PEGE (774) according to page 44, lines 15-16) and polyethylenethio glycol thioglycidyl ether (PESGE (834) according to page 44, lines 17-18) with high hardness monomers containing (meth)acrylate groups.

4. The 35 U.S.C. 112, first paragraph, rejection of claims 3 and 9 is withdrawn because the amendment defines the substituents in formulae (10), (11) and (14).

Art Unit: 1712

5. The certified translation for Japanese priority application nos. 205165/99 filed July 19, 1999 contains the same subject matter as claimed in the instant application. Therefore, European Patent No. 940,694 having a publication date of September 8, 1999 has been antedated, thereby resolving the 35 U.S.C. 102(a) rejection predicated thereon.

6. Claims 1, 3-11, 15, 19-22, 26 and 27 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4, 5 and 7 of U.S. Patent No. 6,802,993. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons of record set forth on page 8, paragraph 12 of the non-Final rejection.

7. The terminal disclaimer filed February 16, 2005 has been disapproved since attorney Roger C. Hahn signing the document is not an attorney of record.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention at the time the application was filed.

8. The specification on page 29, after line 31 and claim 3 (Appendix B of the amendment, page 3, lines 3-5) defines Y of formula (11) as representing "a portion obtained by removing -C=C- from the aromatic or heterocyclic group." There is no support in the specification and claims of the instant application, nor in Japanese priority application nos. 205165/99 (page 28, lines 7-10) and 295835/99 (page 30, lines 11-14) for the characterization of Y as formed from an aromatic or heterocyclic group having the unsaturation removed. If it is stipulated that the ring forming around and including Y represents as a whole a hydrocarbon or unsaturated heterocyclic group, the original language will be accepted.

9. The specification on page 33, after line 24 describes K of formula (13) as representing "a portion obtained by removing -C=C- from the aromatic or heterocyclic group." There is no support in the specification and claims of the instant application, nor in Japanese priority application nos. 205165/99 (page 34, lines 6-9) and 295835/99 (page 32, lines 6-9) for denoting K as obtained from an aromatic or heterocyclic group having the unsaturation removed.

The originally disclosed terminology will be suitable if it is stipulated that the ring forming around and including K represents as a whole a hydrocarbon or unsaturated heterocyclic group.

Claims 1, 3-11, 15, 19-22 and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Momoda et al. Patent No. 6,194,511.

The applied reference has one common inventor and a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

The rejection is maintained for the reasons of record set forth in the non-Final rejection. The arguments filed February 16, 2005 have been considered but are unpersuasive.

10. The Notice of Recordation of Assignment Document indicates common ownership but does not satisfy the criteria for overcoming a 35 U.S.C. 102(e) espoused hereinabove. Either a 37 CFR 1.132 declaration must be filed establishing that any teachings disclosed but not claimed in Momoda et al. was derived from the inventor of this application, or a showing under 37 CFR 1.131.

Claims 1, 3-11, 19-22 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent No. 10-338869.

The rejection is maintained for the reasons of record set forth in the non-Final rejection. The arguments filed February 16, 2005 have been considered but are unpersuasive.

11. The exhibit filed with the certified translation for Japanese priority application no. 295835/99 identifies the molecular weights of some of the chromene compounds exemplified in paragraph 77 on pages 12-13 wherein the closest value to the claimed minimum of 540 is 515 for 3,3-bis(3-fluoro-4-methoxyphenyl)-6-morpholino-3H-benzo[f]chromene (Chromene Compound No. 5). However, the molecular weights of only the first seven chromene compounds listed in paragraph 77, lines 1-8 of the Japanese patent have been revealed.

The Japanese patent exemplifies numerous other species of chromene compounds. Furthermore, the identical structure of the photochromic compound of general formula (10) depicted in claim 3 is exhibited on page 8, Formulae 9 and 10 of the reference.

12. The reference clearly contemplates the same type of chromene compound as that of the claims even though a particular molecular weight is not recited. There is no evidence confirming the criticality of the claimed photochromic compound molecular weight via a comparison with a species of chromene compound shown in paragraph 77 of the Japanese patent with a molecular weight most closely approaching the claimed minimum of 540.



Art Unit: 1712

13. The showings must be commensurate in scope with the claimed photochromic compound D) with a minimum molecular weight of 540 which embraces myriad kinds of structurally different photochromic compounds including the fulgimides and spirooxazines set forth on page 28, lines 12-15 of the specification as well as the variety of other chromene compounds encompassed within the broad confines of formula (1) of claim 3 as described on page 29, line 12 to page 37, line 24 of the specification.

14. Example 39 testing Chromene 4 (specification, page 46, lines 27-35 and Table 2, page 53) with a molecular weight of 376 is not reflective of the closest prior art chromene compound shown in paragraph 77 of the Japanese patent. Chromene Compound 5) of the exhibit has a molecular weight of 515 and is significantly closer to the claimed minimum of 540 than the tested value. Furthermore, the molecular weights of the numerous other species of chromene compounds have not been identified to ascertain whether Chromene Compound 5) is actually the closest prior art compound.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sellers whose telephone number is (571) 272-1093. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).



Robert Sellers  
Primary Examiner  
Art Unit 1712